

What is Agro-Informatics?

AEC3012

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Food and Agriculture Organization (FAO)

Agro-informatics connects information technology with the farm management, analysis and application of agricultural data to design more accurate and targeted agricultural interventions.

Examples of The Use of New Technology in Agriculture

Satellite Imagery

Remote Sensing

Geographic Information Systems (GIS)

Information and Technology enable the transformation of data into actionable information.

Benefits of Agro-Informatics

- Enhanced Decision Making: With real-time data on soil health, weather patterns, and crop growth, farmers can make informed decisions that maximize their yield.
- Resource Optimization: Agriculture informatics helps optimize the use of resources such as water, fertilizers, and pesticides, reducing waste and environmental impact.
- Precision Agriculture: Through GPS and remote sensing technologies, farmers can precisely target their interventions, minimizing costs and environmental harm.

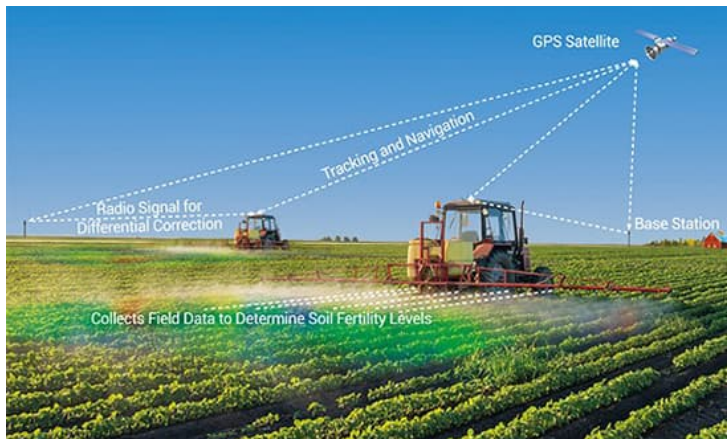
Benefits of Agro-Informatics

- Early Disease Detection: Monitoring tools and data analysis enable the early detection of disease outbreaks, preventing their spread and minimizing losses.
- Supply Chain Efficiency: Informatics streamlines the supply chain, reducing post-harvest losses and ensuring fresher produce reaches consumers.

Example of Agro-Informatics



Example of Agro-Informatics



Example of Agro-Informatics



In this class,

- We will combine agricultural economics and computer science.
- We will learn about how to collect, store, and analyze a variety of data used in agricultural economics.

- A variety of sources of data and information related to agricultural economics
- Statistics Korea, Bank of Korea, Government Agencies, AGRIX, etc
- International Agricultural Data (World Bank, FAO, etc)

Data Collect

국나통계 | 주제별 통계

https://kosis.kr/statisticsList/statisticsListIndex.do?vwcd=MT_ZTITLE&menuId=M_01_01

국립중앙도서관

여러 개의 통계표를 하나의 통계표로 합치 새로운 통계표를 생성해 볼 수 있습니다.

통계목록 범위

- (대용량)파일다운로드
- 통계정보
- 통계표정보
- 일반통계표
- 추진통계표
- 시계열단절통계표
- 세상을그리는통계

국도이용

경제일반 · 경기

기업경영

농림

- ▶ 농작물생산조사
- ▶ 가공식품소비자태도조사
- ▶ 가축동향조사
- ▶ 과실류가공현황
- ▶ 국가산림자원조사
- ▶ 귀농귀촌실태조사
- ▶ 귀농어·귀촌인통계
- ▶ 기능성장잠재산업현황
- ▶ 농림어업조사
- ▶ 농림어업총조사
- ▶ 농림업생산지수
- ▶ 농산물소득조사
- ▶ 농어업인등에대한복지실태조사
- ▶ 농업기계보유현황

국내통계 | 주제별 통계

https://kosis.kr/statisticsList/statisticsListIndex.do?vwcd=MT_ZTITLE&menuId=M_01_01

주제별 통계

통계목록검색

주제전체보기 관심주제설정 목록받기 오름차순

- 인구
- 사회일반
- 범죄·안전
- 노동
- 소득·소비·자산
 - ▶ 가계금융복지조사
 - ▶ 가계동향조사
 - ▶ 농가경제조사
 - ▼ 농가경제(2003년 이후, 2인이상)
 - ▼ 농가경제(2023년 이후, 1인이상)
 - ▼ 농가경제(1962~2002년, 2인이상)

나의 통계

통계표, 게시글 등 나만의 스크린 목록을 빠르게 찾아갈 수 있습니다.

복합통계표 조회

여러 개의 통계표를 하나의 통계표로 한꺼번에

농림사업 정보제공

■ 많은 지원사업 정보 중에서 나의 조건에 맞는 사업정보를 검색할 수 있습니다.

지침서

안내서

사용자매뉴얼

전체선택 | 선택조건화

생산지반(공통)	농촌, 공동체	식량	원예작물, 유통	축산	식품	농생명 산업	탄소중립, 기후변화	임업
<div><div>✓ 직불제</div><div>✓ 소득안정</div><div>✓ 농가피해</div><div>✓ 농지</div><div>✓ 인력인자리</div><div>✓ 농가지원 통합안내</div></div>	<div><div>✓ 농촌복지 여성농업인</div><div>✓ 농촌개발농촌산업</div><div>✓ 농촌공동체환경</div><div>✓ 지역인자리</div><div>✓ 귀농귀촌인력육성</div></div>	<div><div>✓ 공동경영체</div><div>✓ 비영리농생산지반</div><div>✓ 식량수급안정</div><div>✓ 기반조성</div><div>✓ 수매기공수비</div></div>	<div><div>✓ 생산기반위보장비</div><div>✓ 채소</div><div>✓ 과수위해특작</div><div>✓ 유통기공수비</div><div>✓ 수급안정수비육신</div><div>✓ 산지조작화 통합안내</div></div>	<div><div>✓ 사립지원</div><div>✓ 가족사육업산업</div><div>✓ 축산환경개선</div><div>✓ 가공유통수급수비</div><div>✓ 가족방역위생지원</div><div>✓ 조사지원 통합안내</div></div>	<div><div>✓ 기반구축</div><div>✓ 식품안전환경인증</div><div>✓ 식품산업위생산업</div><div>✓ 식생명식품수비</div><div>✓ 농식품수출</div></div>	<div><div>✓ 스마트농업</div><div>✓ 종자, 곤충, 미생물, 도시농업</div><div>✓ 동물복지</div><div>✓ 창업농산업인력</div><div>✓ 농산양수출 국제개발</div></div>	<div><div>✓ 친환경농업</div><div>✓ 에코지원</div><div>✓ 차관소농축산</div><div>✓ 차관소인증지원</div><div>✓ 기후변화대응</div></div>	<div><div>✓ 생산기반확충</div></div>

사업년도 2025

담당기관 농림축산식품부

검색

신청자격 ☐ 농가 ☐ 농업법인/농업기관 ☐ 지자체

자금유형 ☐ 국비보조 ☐ 지방비보조 ☐ 융자 ☐ 자부담

Data Collect

World Bank Open Data | Data

https://data.worldbank.org

HOME ECONOMIES THEMES DATA & RESOURCES ABOUT English

World Bank Open Data

Free and open access to global development data

agriculture

World Development Indicators People Prosperity Planet Infrastructure Digital

Agriculture & Rural Development

- Agriculture, forestry, and fishing, value added (constant LCU)
- Agriculture, forestry, and fishing, value added (current LCU)
- Agriculture, forestry, and fishing, value added (current US\$)
- Agriculture, forestry, and fishing, value added (% of GDP)
- Agriculture, forestry, and fishing, value added (annual % growth)
- Agriculture, forestry, and fishing, value added (constant 2015 US\$)
- Agriculture, forestry, and fishing, value added per worker (constant 2015 US\$)

Browse World Development Indicators by Economy or Indicator

development. This is an ongoing effort and we welcome your

INFRASTRUCTURE

DIGITAL

Eliminating the digital divide

88%	10%	39,024	91.6%	65.4%
Primary completion rate, female (% of relevant age)	Poverty headcount ratio at \$3.00 a day (2021 PPP) (% of population), 2023	Carbon dioxide (CO2) emissions (total) excluding LULUCF (Mt CO2e), 2023	Access to electricity (% of population), 2023	Individuals using the Internet (% of population), 2023

Data Collect

The screenshot shows the FAOSTAT website interface. At the top, there's a blue header with the FAO logo and the text 'Food and Agriculture Organization of the United Nations'. Below this, there's a navigation bar with links for 'Data', 'Selected Indicators', 'Compare Data', 'Rankings', 'Definitions and Standards', and 'FAQ'. A search bar is also present. The main content area is titled 'Data' and features a list of categories, each with a right-pointing arrow icon. The categories are: Production, Food Security and Nutrition (with an SDG indicator icon), Food Balances, Trade, Prices, Cost and Affordability of a Healthy Diet, Food and Diet, Population and Employment, Investment (with an SDG indicator icon), Macro-Economic Indicators, Food Value Chain, Climate Change: Agrifood systems emissions, and Forestry. The website is powered by Google, as indicated by the logo in the top right corner.

FAO Food and Agriculture Organization of the United Nations

powered by Google



FAOSTAT

المربية 中文 English Français Pycckий Español

Home Data Selected Indicators Compare Data Rankings Definitions and Standards FAQ Search an Indicator or Commodity

Data

DOMAINS DOMAINS TABLE

- Production
- Food Security and Nutrition  SDG indicators
- Food Balances
- Trade
- Prices
- Cost and Affordability of a Healthy Diet
- Food and Diet
- Population and Employment
- Investment  SDG indicator
- Macro-Economic Indicators
- Food Value Chain
- Climate Change: Agrifood systems emissions
- Forestry

- Database Management System (DBMS, e.g., MS ACCESS)
- Enterprise Resource Planning (ERP)
- Structured Query Language (SQL)